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Energy performance of buildings — Methods for expressing energy performance and for energy certification of buildings

*Performance énergétique des bâtiments — Méthodes d'expression de la
performance énergétique et de certification énergétique des bâtiments*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

The committee responsible for this document is ISO/TC 163, *Thermal performance and energy use in the built environment*, in collaboration with Technical Committee ISO/TC 205, *Building environment design*.

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Introduction

This International Standard is prepared by ISO/TC 163, *Thermal performance and energy use in the built environment*, in collaboration with Technical Committee ISO/TC 205, *Building environment design*, and is one of three closely linked documents dealing with definitions and general procedures for the overall building energy performance rating and certification (see also [Figure 1](#)):

- ISO/TR 16344, *Energy performance of buildings — Common terms, definitions and symbols for the overall energy performance rating and certification*;
- ISO 16343, *Energy performance of buildings — Methods for expressing energy performance and for energy certification of buildings*;
- ISO 16346, *Energy performance of buildings — Assessment of the overall energy performance*.

ISO/TR 16344 provides a coherent set of terms, definitions, and symbols for concepts and physical quantities related to the overall energy performance of buildings and its components, including definitions of system boundaries, to be used in all International Standards elaborated within ISO on energy performance of buildings.

ISO 16346 defines the general procedures to assess the energy performance of buildings, including technical building systems, different types of ratings, and building boundaries.

Their development greatly benefited from similar CEN documents (viz. CEN/TR 15615, EN 15217, and EN 15603) developed to support the European Energy Performance of Buildings Directive (EPBD).

A revision of the set of CEN standards to support the EPBD is anticipated in the near future. Issuing the ISO documents aims to bring the key subjects of building energy performance assessment to the global international level.

Given the strong demand for these standards at ISO level, it was decided not to delay the advancement of these International Standards and Technical Reports by waiting on these CEN developments. However, it is expected that a future revision of these International Standards and Technical Reports will be carried out in collaboration with CEN under the Vienna Agreement.

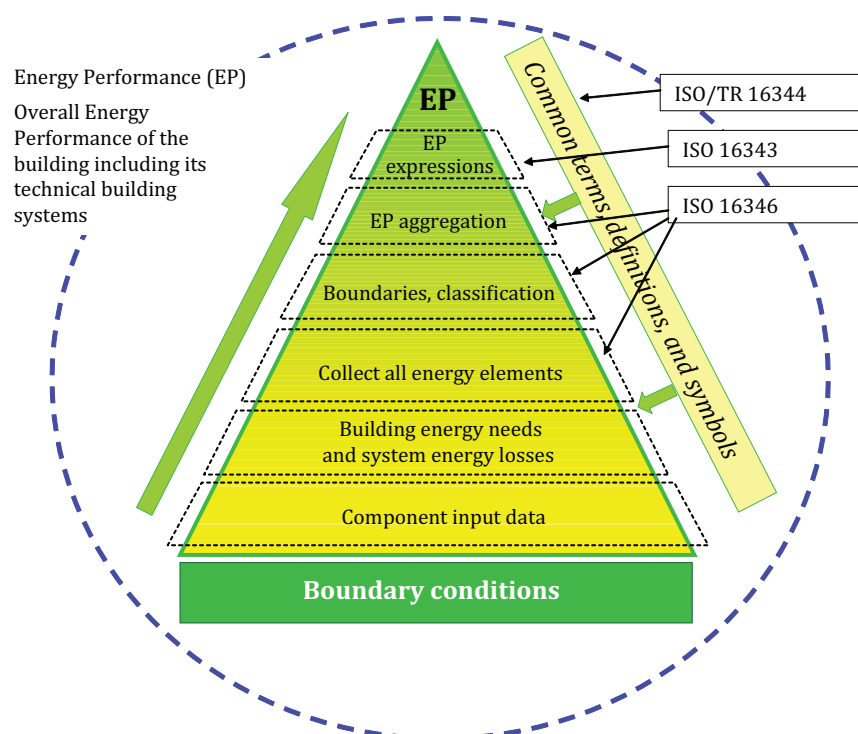


Figure 1 — Flow diagram illustrating the successive elements of the general procedures

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Introduction to methods for expressing energy performance and for energy certification of buildings

Expression of the energy performance of buildings is needed to

- enable the establishment of regulations regarding energy performance of buildings, and
- encourage building designers, owners, operators, and users to improve the energy performance of buildings.

This International Standard provides methods to express the energy performance of buildings in a way that serves these purposes. It is based on International Standards that provide methods to calculate or measure energy performance.

This International Standard is intended to be used by

- developers of a procedure for building energy certification,
- building authorities setting minimum requirements on the energy performance, and
- building designers, building owners, building operators, and building users to assess the performance of a planned or existing building and ways to improve it and to express this performance.